

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of the claims in the application:

- 1 1. (Presently Amended) An electrical component, comprising:
2 a capacitor having a first end and a second [[ends]] end;
3 a circuit coupled to the capacitor, the circuit including discrete magnetically-coupled
4 windings ~~for providing capacitor-path inductance cancellation~~ such that the magnetic induction
5 of the discrete magnetically-coupled windings provides capacitor-path inductance cancellation.
6
- 1 2. (Original) The component according to claim 1, wherein the coupled windings are discrete
2 windings.
- 1 3. (Original) The component according to claim 1, wherein the coupled windings are integrated
2 with the capacitor.
- 1 4. (Original) The component according to claim 1, wherein the coupled windings are wound on
2 a former.
- 1 5. (Original) The component according to claim 4, wherein the former is substantially non-
2 magnetic.
- 1 6. (Original) The component according to claim 1, wherein the coupled windings are formed
2 from foil.
- 1 7. (Original) The component according to claim 1, wherein the coupled windings are formed on
2 a flexible material.

1 8. (Original) The component according to claim 1, wherein the coupled windings are formed on
2 a printed circuit board.

1 9. (Original) The component according to claim 1, wherein the coupled windings include a
2 structure having an air core.

1 10. (Original) The component according to claim 1, wherein the coupled windings include a
2 magnetic material.

1 11. (Canceled)

1 12. (Canceled)

1 13. (Canceled)

1 14. (Original) The component according to claim 1, wherein the component has three terminals.

1 15. (Original) The component according to claim 1, wherein the coupled windings include first
2 and second coils and a first terminal coupled to a first end of the first coil and a first end of the
3 second coil, a second terminal coupled to a second end of the second coil, and wherein the
4 second end of the capacitor is coupled to a second end of the first coil.

1 16. (Original) The component according to claim 15, wherein a third terminal is coupled to the
2 first end of the capacitor.

1 17. (Original) The component according to claim 1, wherein the coupled windings include first
2 and second coils and a first terminal coupled to a first end of the first coil, a second terminal
3 connected to the second end of a second coil, and wherein the second end of the capacitor is
4 coupled to a second end of the first coil and to the first end of the second coil.

1 18. (Original) The component according to claim 17, wherein the first and second coils are
2 constructed as a single coil with a tap.

1 19. (Original) The component according to claim 17, wherein a third terminal is coupled to the
2 first end of the capacitor.

1 20. (Original) The component according to claim 1 wherein the coupled windings are wound
2 about a package containing the capacitor.

1 21. (Original) The component according to claim 1, wherein the coupled windings generate a
2 negative equivalent inductance in series with the capacitor.

1 22. (Original) The component according to claim 1, wherein the induction of the mutually
2 coupled windings generates a voltage that counteracts the voltage due to the equivalent series
3 inductance of the capacitor.

1 23. (Original) The component according to claim 1, wherein the coupled windings are formed
2 from a single tapped winding.

1 24. (Original) The component according to claim 1, wherein the coupled windings have a
2 mutual inductance greater than one of the self inductances.

1 25. (Original) The component according to claim 24, wherein the mutual inductance of the
2 coupled windings minus the self inductance of one of the coupled windings is substantially equal
3 to the equivalent series inductance of the capacitor plus any interconnect inductance.

1 26. (Original) The component according to claim 1, wherein the coupled windings have a
2 mutual inductance that is substantially of the same magnitude as the equivalent series inductance
3 of the capacitor plus any interconnect inductance.

- 1 27. (Currently Amended) A method of suppressing electrical signals, comprising:
2 coupling [an inductively coupled winding] a circuit including discrete magnetically
3 coupled windings to a capacitor having first and second ends; and
4 selecting a mutual inductance of the coupled windings [[for nullifying]] to nullify an
5 inductance of the capacitor electrical path.
- 1 28. (Original) The method according to claim 27, further including modeling the winding
2 circuit with a T model having a first leg, a second leg and a third leg, wherein the third leg is
3 coupled to the capacitor.
- 1 29. (Original) The method according to claim 28, further including providing the third leg with
2 a negative inductance.
- 1 30. (Original) The method according to claim 29, further including modeling the capacitor as
2 having a capacitance and an equivalent series inductance, which is canceled by the negative
3 inductance of the third leg of the T model.
- 1 31. (Original) The method according to claim 27, further including selection of a connection
2 point of the coupled winding circuit by finding the point that minimizes the magnitude of the
3 output signal when an input signal is applied.
- 1 32. (Original) The method according to claim 27, further including forming discrete windings.
- 1 33. (Original) The method according to claim 27, further including integrating the capacitor and
2 the winding circuit.
- 1 34. (Canceled)
- 1 35. (Original) The method according to claim 27, further including setting the mutual
2 inductance of the coupled windings larger than the self inductance of one of the windings.

1 36. (Original) The method according to claim 35, further including setting the difference
2 between a mutual inductance of the coupled windings and the self inductance of one of the
3 windings substantially equal to the equivalent series inductance of the capacitor electrical path.

1 37. (Original) The method according to claim 27, further including setting the magnitude of a
2 mutual inductance of the coupled windings substantially equal to the equivalent series inductance
3 of the capacitor electrical path.

1 38. (Presently Amended) A filter, comprising:
2 a capacitive element; and
3 a circuit coupled to the capacitive element, the circuit including discrete magnetically
4 coupled windings for nullifying the effect of an equivalent series inductance of a path through
5 the capacitive element for providing cancellation of the equivalent series inductance of the
6 capacitor electrical path.

1 39. (Original) The filter according to claim 38, wherein the coupled windings are discrete
2 windings.

1 40. (Original) The filter according to claim 38, wherein the coupled windings are integrated
2 with the capacitive element.

1 41. (Original) The filter according to claim 38, wherein the coupled windings are formed on a
2 flexible material.

1 42. (Original) The filter according to claim 38, wherein the coupled windings include a
2 structure having an air core.

1 43. (Original) The filter according to claim 38, wherein the coupled windings include a
2 magnetic material.

- 1 44. (Canceled)
- 1 45. (Original) The filter according to claim 38, wherein the filter has three terminals.
- 1 46. (Original) The filter according to claim 38, wherein the coupled windings are wound about
2 a package containing the capacitive element.
- 1 47. (Original) The filter according to claim 38 wherein the magnitude of the mutual inductance
2 of the coupled windings is substantially equal to the equivalent series inductance of the
3 capacitive element plus any interconnect inductance.
- 1 48. (Original) The filter according to claim 38 wherein the mutual inductance of the coupled
2 windings is larger than the self inductance of one of the windings.
- 1 49. (Original) The filter according to claim 48 wherein the difference between the mutual
2 inductance of the coupled windings and the self inductance of one of the windings is
3 substantially equal to the equivalent series inductance of the capacitive element plus any
4 interconnect inductance.
- 1 50. (Currently Amended) An electrical component, comprising:
2 a first pair of conductors being substantially capacitively coupled;
3 a second pair of conductors being substantially magnetically coupled, the first and second
4 pair of conductors being coupled such that the magnetic induction of the second pair of
5 conductors serves to cancel the effects of the inductance of the first pair of capacitively coupled
6 conductors.
- 1 51. (Original) The component according to claim 50, wherein each of the conductors in the
2 second pair of conductors is electrically coupled to a first terminal, a first conductor of the
3 second pair of conductors is electrically coupled to a second terminal, a second conductor of the
4 second pair of conductors is electrically coupled to a first conductor of the first pair of

conductors, and a second conductor of the first pair of conductors is electrically coupled to a third terminal.

52. (Previously Amended) The component according to claim 51, wherein a first one of the conductors of the first pair of conductors and a second one of the conductors in the second pair of conductors are formed from a single conductor.

53. (Original) The component according to claim 50 wherein the magnetic flux due to currents in the first pair of conductors links the second pair of conductors.

54. (Presently Amended) An electrical component, comprising:
a first conductor having first and second portions configured such that the first and second conductor portions are magnetically coupled; and
~~a pair of capacitively coupled conductors~~ that are substantially capacitively coupled with each other but not with the first conductor, wherein the first conductor is coupled to a first one of the pair of conductors such that the magnetic induction of the first conductor nullifies effects of the equivalent series inductance of a path from the first conductor through the pair of conductors.

55. (Original) The component according to claim 54, wherein a first end of the first conductor is coupled to a first terminal, a second end of the first conductor is coupled to a second terminal, an intermediate portion of the first conductor is coupled to the first one of the pair of conductors, and a second one of the pair of conductors is coupled to a third terminal.

56. (Presently Amended) An electrical circuit, comprising
a first subcircuit; and
a second subcircuit coupled to the first subcircuit, the second subcircuit including discrete magnetically coupled windings for nullifying the effect of an equivalent series inductance of a path through the first subcircuit.

57. (Original) The circuit of claim 56, wherein the first subcircuit includes a capacitor.

1 58. (Original) The circuit of claim 56, wherein the coupled windings are formed on a printed
2 circuit board.

1 59. (Original) The circuit of claim 56, wherein the coupled windings are formed on an
2 integrated circuit.

60. (Previously Amended) The circuit of claim 56, wherein the coupled windings are printed.

61. (Original) The circuit of claim 56, wherein the coupled windings are formed on a flexible material.

Claims 62-66 (Cancelled).

67. (New) An electrical component, comprising:
a capacitor having first and second ends;
a circuit coupled to the capacitor, the circuit including discrete magnetically-coupled windings to induce a voltage that cancels voltage due to capacitor path inductance.

68. (New) An electrical component, comprising:
a capacitor having first and second ends;
a circuit coupled to the capacitor, the circuit including discrete magnetically-coupled windings for providing capacitor-path inductance cancellation over frequency.

69. (New) An electrical component, comprising:
a capacitor having a first end and a second end;
a circuit coupled to the capacitor, the circuit including magnetically-coupled windings to generate a voltage for canceling capacitor-path inductance.

70. (New) An electrical component, comprising:
a capacitor having a first end and a second end and having a capacitive impedance and a parasitic inductive impedance; and
a circuit coupled to the capacitor, the circuit including discrete magnetically-coupled windings to cancel the parasitic inductive impedance.

71. (New) A method of suppressing electrical signals, comprising:

2 coupling a circuit including discrete inductively coupled windings to a capacitor having
3 first and second ends, wherein induction of the coupled windings generates a voltage to
4 counteract a voltage due to capacitor path inductance.

1 72. (New) An electrical component, comprising:

2 a capacitor having first and second ends;
3 a circuit coupled to the capacitor, the circuit including magnetically-coupled windings for
4 providing capacitor-path inductance cancellation, wherein the coupled windings have a mutual
5 inductance greater than one of the self inductances.

1 73. (New) The component according to claim 72, wherein the mutual inductance of the coupled
2 windings minus the self inductance of one of the coupled windings is substantially equal to the
3 equivalent series inductance of the capacitor plus any interconnect inductance.

1 74. (New) A method of suppressing electrical signals, comprising:

2 coupling an inductively coupled winding circuit to a capacitor for nullifying an
3 inductance of the capacitor electrical path; and
4 selection of a connection point of the coupled winding circuit by finding the point that
5 minimizes the magnitude of the output signal when an input signal is applied.

1 75. (New) A method of suppressing electrical signals, comprising:

2 coupling an inductively coupled winding circuit to a capacitor for nullifying an
3 inductance of the capacitor electrical path; and
4 setting the mutual inductance of the coupled windings larger than the self inductance of
5 one of the windings.

1 76. (New) The method according to claim 75, further including setting the difference between a
2 mutual inductance of the coupled windings and the self inductance of one of the windings
3 substantially equal to the equivalent series inductance of the capacitor electrical path.

1 77. (New) A filter, comprising:
2 a capacitive element; and
3 a circuit coupled to the capacitive element, the circuit including coupled windings for
4 providing cancellation of the equivalent series inductance of the capacitor electrical path,
5 wherein the mutual inductance of the coupled windings is larger than the self inductance of one
6 of the windings.

1 78. (New) The filter according to claim 77 wherein the difference between the mutual
2 inductance of the coupled windings and the self inductance of one of the windings is
3 substantially equal to the equivalent series inductance of the capacitive element plus any
4 interconnect inductance.